

February 2010 Weather in Review

The active and progressive southern stream westerlies increased the pace of weather changes from day to day in February 2010 from the impacts of Pacific Cold Fronts, Arctic Cold Fronts, Dry and Warm Air masses coming from the West, and return periods of Gulf moisture. The consistent trend of cooler and wetter conditions than usual since the Fall of 2009, continued and made February 2010 one of the cooler and wetter February months of record.

February began with cloudy skies that turned into a rain event at the beginning of the month. Widespread rain with showers persisted for most of the day on February 3rd, when Del Rio had a record daily rain of 1.16 inches and San Antonio had 2.11 inches, almost breaking the February 3rd daily record of 2.44 inches at San Antonio on February 3, 1986. Another wave of rain and showers came Thursday, February 4th. This rain area turned into a line of showers and some thunderstorms in the late afternoon to early evening of the 4th. Skies cleared up the 5th, as highs warmed to the 60s and 70s. Increasing clouds and cooler conditions came weekend of the 6th and 7th, as skies turned cloudy the 7th. A brief warming trend ahead of a fast moving cold front on Monday the 8th allowed some locations to warm to the 70s; however, this quickly changed to windy and colder weather in the afternoon through the evening. This brought several cold days to South Central Texas. While conditions got cooler the 9th, even colder conditions followed on February 10th, as a fast moving disturbance brought a brief period of rain and sleet in the morning to the afternoon of Wednesday, February 10th. A 2nd disturbance brought rain and fog Thursday the 11th. The widespread rains caused some ponding of water on rain soaked ground, in what was one of the wetter Fall to Winter periods of record.

Clearing skies and more sunshine came Friday the 12th, as a wave of cool and drier conditions came across South Central Texas from the north and northwest. After some sunshine on the 13th and milder afternoon temperatures, clouds increased the night of the 13th to morning of the 14th. Skies briefly broke up in the late morning and afternoon of the 14th in advance of a fast moving cold front. Afternoon highs warmed to the 60s and low 70s. A fast moving cold front produced a brief period of showers in the afternoon to early evening on the 14th followed by windy and colder conditions. North winds gusted to near 40 to 50 mph in wake of the cold front in the late afternoon through the evening. Several dry days followed this cold front from the 15th to the 18th. Skies became cloudy again the 19th and 20th, with scattered showers. Areas of rain and fog came the night of the 20th to the predawn hours of the 21st, followed rapid drying and warmer conditions from the west during the day on February 21st, after the passage of a fast moving Pacific Front. Initially dry and warm conditions were followed by a cooler air mass late in the evening on the 21st. Sunday the 21st was the warmest day of the month, when highs rose to the 70s to near 80 across the region.

Cooler weather returned Monday the 22nd, as scattered middle clouds moved across the region in advance of another disturbance. As the fast moving disturbance moved across the area the 23rd, cold, arctic air spilled across the region again from the north and northeast. This brought a mixed precipitation event, with snow and sleet over the northern parts of South Central Texas to cold rain over the southern part of the area. Since the disturbance came more quickly from the west, precipitation amounts were not as high as on February 3rd/4th or February 1th. The February 23rd event brought the most snowfall and sleet for the winter of 2009/2010. A mix of rain, sleet and snow was observed over the Hill Country to adjacent parts of Central and South Central Texas. Sleet was observed as far east as Yoakum in Dewitt county on February 23rd. On February 23rd, 1/2 to 3 inch snow was observed over the Hill Country; 0.3 to near 1.5 inches of snow in Austin; and near 2 to near 4 inches of snow over Williamson County. The heaviest snow reports were 4.2 inches 0.3 miles south of Jarrell in Williamson County; 3 inches 1.6 miles southwest of Andice in Williamson county; 3 inches 5.5 miles north, northwest of Georgetown in Williamson County; 3 inches 0.6 miles north, northwest of Liberty Hill in Williamson County; and 3 inches 1.9 miles west, southwest of Leander in Travis County. Reports of cold rain and sleet were observed from San Antonio to Austin and east to Yoakum. Snowfall amounts of 0.6 inches of snow were observed at Austin Mabry, 0.3 inches at Austin Bergstrom, and a trace at Del Rio. At San Antonio, 0.2 inches of sleet was observed. The sleet melted quickly after it fell. Skies cleared the night of the 23rd, as the disturbance moved east, and a sunny and dry day followed the 24th. After sunny conditions on the 25th, when highs rose to the 60s, clouds increased the night of the 25th, followed by another fast moving cold front and breezy to windy conditions on Friday the 26th. Initially a brief stretch of mild air came across from the west and northwest during the day of the 26th, followed by cooler conditions in the mid afternoon to early evening. On the last weekend of the month, dry weather the 27th to the early afternoon of the 28th changed in the mid to late afternoon of Sunday the 28th, as low clouds increased rapidly. This was followed by occasional rain and showers on Sunday evening.

In the winter of 2009/2010 windy conditions in wake of fast cold fronts has been common. The pattern of windy days in wake of cold front began in the winter of 2008/2009 to early Spring of 2009. This pattern returned in the Winter of 2009/2010, accompanied by additional energy that the active southern stream westerlies bring during El Nino winters. Many El Nino winters from the past have brought windy days. The 1982/1983 El Nino brought many windy days.

Wet conditions persisted from September 2009 to February 2010, with a cooler than usual winter season. The cooler than usual weather in the winter of 2009/2010 was consistent, with brief warming trends. The active southern stream westerlies caused rapid day to day changes in the weather, and the wetter and cooler conditions than usual helped to increase the frequency of fog events.

A summary of these conditions follows.

THE FALL OF 2009 THROUGH FEBRUARY 2010 WAS ONE OF THE WETTEST SEPTEMBER TO FEBRUARY MULTI-MONTH PERIODS ACROSS PARTS OF CENTRAL AND SOUTH CENTRAL TEXAS AND ONE OF THE COOLER WINTERS.

AT SAN ANTONIO SEPTEMBER 2009 TO FEBRUARY 2010 WAS THE 2ND WETTEST SEPTEMBER TO FEBRUARY PERIOD WITH 31.09 INCHES OF RAIN FROM FROM SEPTEMBER 2009 TO FEBRUARY 2010. THE WETTEST 6 MONTH PERIOD AT SAN ANTONIO SINCE 1871 WAS 43.27 INCHES FROM DECEMBER 1991 TO MAY 1992.

THE WETTEST SEPTEMBER TO FEBRUARY PERIODS AT SAN ANTONIO FROM 1871 TO 2010 ARE LISTED BELOW.

- 1. SEPTEMBER 1874 TO FEBRUARY 1875 31.71**
- 2. SEPTEMBER 2009 TO FEBRUARY 2010 31.09**
- 4. SEPTEMBER 1991 TO FEBRUARY 1992 28.73**
- 5. SEPTEMBER 1967 TO FEBRUARY 1968 28.33**

AT AUSTIN MABRY SEPTEMBER 2009 TO FEBRUARY 2010 WAS THE 12TH WETTEST SEPTEMBER TO FEBRUARY PERIOD AT AUSTIN MABRY WITH 25.52 INCHES OF RAIN FROM SEPTEMBER 2009 TO FEBRUARY 2010. THE WETTEST 6 MONTH PERIOD AT AUSTIN MABRY WAS 47.25 INCHES FROM APRIL 1919 TO OCTOBER 1919.

THE WETTEST SEPTEMBER TO FEBRUARY PERIODS AT AUSTIN MABRY FROM 1856 TO 2010 ARE LISTED BELOW.

- 1. SEPTEMBER 1913 TO FEBRUARY 1914 36.97**
- 2. SEPTEMBER 1923 TO FEBRUARY 1924 35.85**
- 3. SEPTEMBER 1991 TO FEBRUARY 1992 31.77**
- ...**
- 12. SEPTEMBER 2009 TO FEBRUARY 2010 25.52**

AT DEL RIO SEPTEMBER 2009 TO FEBRUARY 2010 WAS THE 31ST WETTEST SEPTEMBER TO FEBRUARY PERIOD AT DEL RIO WITH 9.81 INCHES OF RAIN FROM SEPTEMBER 2009 TO FEBRUARY 2010. THE WETTEST 6 MONTH PERIOD AT DEL RIO SINCE DECEMBER OF 1905 WAS 30.03 INCHES FROM MAY 1914 TO OCTOBER 1914.

THE WETTEST SEPTEMBER TO FEBRUARY PERIODS AT DEL RIO FROM 1906 TO 2010 ARE LISTED BELOW.

- 1. SEPTEMBER 1964 TO FEBRUARY 1965 20.39**
- 2. SEPTEMBER 1930 TO FEBRUARY 1931 19.78**
- 3. SEPTEMBER 1969 TO FEBRUARY 1970 18.68**
- ...**
- 31. SEPTEMBER 2009 TO FEBRUARY 2010 9.81**

FEBRUARY 2010 WAS THE 7TH COLDEST FEBRUARY AT SAN ANTONIO...A TIE WITH FEBRUARY 1978 FOR THE COLDEST FEBRUARY AT AUSTIN BERGSTROM... AND THE 9TH COLDEST FEBRUARY AT AUSTIN MABRY AND DEL RIO.

THE COLDEST FEBRUARYS FOR AUSTIN...DEL RIO...AND SAN ANTONIO ARE LISTED BELOW...USING THE AVERAGE MONTHLY TEMPERATURE FOR FEBRUARY.

AUSTIN BERGSTROM 1943 TO 2010

- 1. FEBRUARY 1978 AND 2010 45.9**
- 2. FEBRUARY 2002 47.9**
- 3. FEBRUARY 1968 48.9**

AUSTIN MABRY 1854 TO 2010

- 1. FEBRUARY 1905 42.3**
- 2. FEBRUARY 1895 42.8**
- 3. FEBRUARY 1978 45.0**
- ...**
- 9. FEBRUARY 2010 47.3**

DEL RIO 1906 TO 2010

- 1. FEBRUARY 1978 49.9**
- 2. FEBRUARY 1968 50.4**
- 3. FEBRUARY 1929 50.6**
- ...**
- 9. FEBRUARY 2010 51.6**

SAN ANTONIO 1885 TO 2010

- 1. FEBRUARY 1905 43.9**
- 2. FEBRUARY 1895 45.2**
- 3. FEBRUARY 1899 45.8**
- ...**
- 7. FEBRUARY 2010 49.4**

THE WINTER OF 2009/2010 HAS BEEN ONE OF THE COLDER WINTERS ACROSS CENTRAL AND SOUTH CENTRAL TEXAS. DECEMBER 2009 TO FEBRUARY 2010 WAS THE 7TH COLDEST DECEMBER TO FEBRUARY AT SAN ANTONIO...A TIE FOR THE 8TH COLDEST DECEMBER TO FEBRUARY AT AUSTIN MABRY...AND A TIE FOR THE 4TH COLDEST DECEMBER TO FEBRUARY AT DEL RIO.

THE TABLE BELOW SHOWS THE COLDEST DECEMBER TO FEBRUARY PERIODS OF RECORD AT AUSTIN MABRY...SAN ANTONIO...AND DEL RIO THROUGH 2010... USING THE AVERAGE TEMPERATURE FROM DECEMBER TO FEBRUARY. THIS RANKING IS RANKED BY EVENT.

AUSTIN	SAN ANTONIO	DEL RIO
COLDEST DEC-FEB FROM 1854-2010	COLDEST DEC-FEB FROM 1885-2010	COLDEST DEC-FEB FROM 1905-2010
1. DEC 1855-FEB 1856 43.7	1. DEC 1977-FEB 1978 47.7	1. DEC 1963-FEB 1964 48.6
2. DEC 1978-FEB 1979 46.2	2. DEC 1983-FEB 1984 47.9	2. DEC 1978-FEB 1979 49.2
3. DEC 1977-FEB 1978 46.4	3. DEC 1898-FEB 1899 48.0	3. DEC 1983-FEB 1984 49.7
4. DEC 1880-FEB 1881 46.6	4. DEC 1963-FEB 1964 48.8	4. DEC 1912-FEB 1913 49.9
5. DEC 1876-FEB 1877 47.4	5. DEC 1904-FEB 1905 48.9	DEC 1914-FEB 1915 49.9
6. DEC 1911-FEB 1912 47.8	DEC 1976-FEB 1977 48.9	DEC 1967-FEB 1968 49.9
DEC 1884-FEB 1885 47.8	7. DEC 2009-FEB 2010 49.1	DEC 1972-FEB 1973 49.9
8. DEC 1983-FEB 1984 47.9	8. DEC 1978-FEB 1979 49.3	DEC 2009-FEB 2010 49.9
DEC 1963-FEB 1964 47.9	9. DEC 1967-FEB 1968 49.7	9. DEC 1911-FEB 1912 50.0
DEC 2009-FEB 2010 47.9	10. DEC 1972-FEB 1973 49.8	10. DEC 1918-FEB 1919 50.2

IN ADDITION THE WINTER SEASON FROM DECEMBER 2009 TO FEBRUARY 2010 WAS THE 8TH WETTEST DECEMBER TO FEBRUARY AT DEL RIO AND SAN ANTONIO...AND A TIE FOR THE 40TH WETTEST DECEMBER TO FEBRUARY AT AUSTIN MABRY...WITH DECEMBER 1945 TO FEBRUARY 1946.